## (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 14 April 2005 (14.04.2005)

**PCT** 

(10) International Publication Number WO 2005/032786 A3

- (51) International Patent Classification?: B28C 5/12, 5/46, 7/16, B01F 15/02, 13/04, B65D 88/04, F16J 12/00, 13/24
- (21) International Application Number:

PCT/GB2004/004176

- (22) International Filing Date: 1 October 2004 (01.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0323120.6

3 October 2003 (03.10.2003) GI

- (71) Applicant (for all designated States except US): CAR-ROLL AUTOLOAD LIMITED [GB/GB]; Wakefield House, Little Casterton Road, Stamford, Lincolnshire, PE9 1BE (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WAKEFIELD, Anthony, Walby [GB/GB]; Carrol Autoload Limited, Wakefield House, Little Casterton Road, Stamford, Lincolnshire, PE9 1BE (GB). CARROL, John, Joseph [GB/GB]; Carrol Autoload Limited, Little Casterton Road, Stamford, Lincolnshire, PE9 1BE (GB).

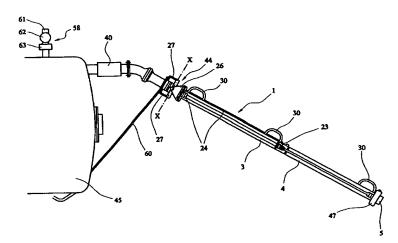
- (74) Agent: CHAVE, Lynne, F.; Urquhart-Dykes & Lord LLP, New Priestgate House, 57 Priestgate, Peterborough, Cambridgeshire PE1 1JX (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

[Continued on next page]

(54) Title: MIXING APPARATUS



(57) Abstract: Mixing apparatus comprising a batch mixing vessel (45) with an inlet (40) to receive constituent material, an agitation assembly for mixing the constituents and an outlet to convey batches of the mixed is provided. The apparatus includes means (120) for pressurizing the vessel to assist in evacuation of the mix, and a conduit (210) through which the mix is conveyed. A single pneumatic source is used both to pressurize the mixing vessel and to drive a jet pump (62) comprising the batch loading means. During the mixing cycle, the compressor used to discharge the finished mix is generally idle. It has been discovered, that this compressor can be used during these periods to drive a jet pump to load the mixing vessel. Therefore, manual loading is avoided and can be achieved such that the mixing cycle time is not interrupted.

## WO 2005/032786 A3



- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
- (88) Date of publication of the international search report:

16 June 2005